

**AMENDMENTS TO THE CLAIMS:**

Please cancel claims 1 to 10 as presented in the underlying International Application No. PCT/IB2005/000350 without prejudice. Please add new claims as indicated in the listing of claims below. This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

Claims 1 to 10 (canceled).

Claim 11 (new): A rotary element of a printing press comprising:

an encoder for generating a periodic first signal in response to rotation of the rotary element; and

an evaluation unit linked to the encoder having at least one synthesizer for generating a second signal having a resolution ratio, a frequency ratio, and a phase relation to the first signal.

Claim 12 (new): The rotary element as recited in claim 1 wherein the evaluation unit includes a control interface for data exchange, the control interface adjusting or selecting at least one of the resolution ratio, the frequency ratio and the phase relation of the first and second signal based on data transmitted from the synthesizer.

Claim 13 (new): The rotary element as recited in claim 1 wherein the evaluation unit includes at least one output interface, the output interface outputting the second signal for driving a clock-pulse-controlled device.

Claim 14 (new): The rotary element as recited in claim 1 wherein a resolution of the second signal is smaller than a resolution of the first signal.

Claim 15 (new): The rotary element as recited in claim 1 wherein the evaluation unit includes at least one divider device connected upstream of the synthesizer for reducing a resolution of the first signal in a decoded state.

Claim 16 (new): The rotary element as recited in claim 1 wherein the first and the second signals each are a sequence of signal pulses, a sequence of digital values, or a variable analog value.

Claim 17 (new): The rotary element as recited in claim 1 wherein the rotary element is a shaft, a cylinder, a roller, a reel, a cylinder journal, or a gear wheel.

Claim 18 (new): The rotary element as recited in claim 1 wherein the evaluation unit includes a further synthesizer for generating a further signal, the further signal having a further resolution ratio, a further frequency ratio, and a further phase relation to the first signal, at least one of the further resolution ratio or the further frequency ratio or the further phase relation of the further signal being different from the resolution ratio, frequency ratio or phase relation, respectively, of the second signal.

Claim 19 (new): A folding apparatus of a rotary offset press comprising at least one rotary element as recited in claim 1.

Claim 20 (new): An offset press comprising at least one rotary element as recited in claim 1.